

ABSTRACT

[0027] A subharmonic carrier-canceling baseband/K upconverter system uses a first splitter to separate an incoming RF signal into two equal components: in-phase (I) and quadrature (Q, 180 degrees delayed). A second splitter is used to separate a local oscillator signal into two equal components: in-phase (I) and quadrature (Q, 90 degrees delayed). A first subharmonic mixer is used to mix both I components, while a second subharmonic mixer is used to mix both Q components. The outputs of both mixers are then combined to produce an output RF signal having reduced second order harmonics close to said local oscillator frequency.